

# Notice of Allowability

Application No.

10/695,405

Examiner

Eric F. Winakur

Applicant(s)

DIAB, MOHAMED K.

Art Unit

3768

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 16 June 2006.
2. ☒ The allowed claim(s) is/are 2-20 and 22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jarom Kesler on 26 June 2006. Applicant agreed to amend claims 2 and 22 to conform more closely to claim 11. Further, Applicant agreed to more clearly set forth the structural relationship between the elements of claim 15.

The application has been amended as follows:

Claim 2 was amended as follows:

2. A noninvasive physiological monitor comprising:  
a noninvasive light source;  
a magnetic field generator [which imposes] adapted to impose a magnetic field on tissue;  
[a polarimeter for detecting the polarization of the light source;]  
a noninvasive detector which generates an output [responsive to] corresponding to rotation of light from said light source attenuated by tissue and acted upon by said magnetic field; and  
a processor [responsive to said output] configured to compensate a determination of values indicative of a blood constituent for light scattering within the tissue based on said output.

Claim 15 was amended as follows:

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A noninvasive optical sensor capable of outputting a signal indicative of one or more physiological parameters or tissue, the optical sensor comprising:

a light source adapted to illuminate a portion of tissue of the subject;

a magnetic field source arranged to impose a magnetic field on said portion of tissue when aid sensor is attached to said subject;

a detector arranged to detect one or more wavelengths of light from said light source after interacting with tissue when attached to said subject and which generates an output corresponding with rotation of said light affected by said magnetic field [responsive to one or more wavelengths of light from said light source and the effect of the one or more magnetic fields from said magnetic field source on the one or more wavelengths of light].

Claim 22 was amended as follows:

22. A noninvasive physiological monitor comprising:

a noninvasive light source;

a magnetic field generator [which imposes] adapted to impose a magnetic field on tissue;

a means for detecting the polarization of the light [;

a noninvasive detector which generates an output responsive to light from said light source] attenuated by tissue and acted upon by said magnetic field and generating an output corresponding thereto; and

a processor responsive to said output to compensate a determination of values indicative of a blood constituent for light scattering within the tissue based on said output.

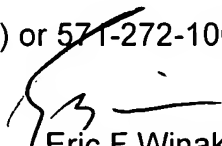
2. The following is an examiner's statement of reasons for allowance: Aldrich (previously cited) teaches a non-invasive blood component analyzer that uses a magnetic field generator (coils) and sensor to determine distance, which can be used for correction of optical measurements. Gobeli teach an optical measurement arrangement that includes a light source, a magnetic field source configured to act upon a light beam emitted by the light source to manipulate polarization of the beam, and a detector that generates output corresponding with polarization; however, the magnetic field is not applied to the measured tissue. The prior art does not teach or suggest an apparatus or method that includes steps or elements for generating a magnetic field to be applied to tissue, and detecting light that has passed through the tissue acted upon by the magnetic field and generating an output corresponding to rotation, in combination with the other claimed steps or elements.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric F. Winakur whose telephone number is 571/272-4736. The examiner can normally be reached on M-Th, 7:30-5; alternate Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571/272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Eric F Winakur  
Primary Examiner  
Art Unit 3768